

### WVCFFC - Water Aerobics Program



Jan. 2013

## "For A Rejuvenating Workout, Water Is All You Need!"

# Aerobic and Anaerobic Exercise

What is the difference between aerobic and anaerobic exercise? Simply put, aerobic exercise is a low to moderate intensity activity sustained for a long duration, while anaerobic is a high intensity or rapid burst of hard exercise done for a short duration.

Aerobic exercise increases the need for oxygen; therefore it strengthens your heart and lungs (which make up the cardiovascular system). During exercise, your muscles demand more oxygen-rich blood and give off more carbon dioxide and other waste products. As a result, your heart has to beat faster to keep up. When you follow a consistent aerobic exercise plan, your heart grows stronger so it can meet the muscles' demands without as much effort.

While aerobic means 'with oxygen', anaerobic means 'without oxygen'. Anaerobic exercise is when your body's demand for oxygen exceeds the oxygen supply available. Anaerobic exercise relies on energy sources that are stored in the muscles and, unlike aerobic exercise, is not dependent on oxygen from (breathing) the air.

Anaerobic exercise uses your muscles at a high intensity for a short period of time. As a result, it can help develop stronger muscles, improve your VO2 max (the highest amount of oxygen one can consume during exercise) and thus improve your cardio-respiratory fitness and increase your capacity to withstand the buildup of waste substances (such as lactic acid) and remove them from the body. This means your endurance and ability to fight exercise

fatigue will improve.

Anaerobic exercise is better at building strength and muscle mass and also benefits the heart and lungs. Increased muscle mass helps a person become leaner and manage his weight, because muscle uses large amounts of calories.

Anaerobic exercise helps us increase our muscle strength and stay ready for quick bursts of speed.

Think of short and fast when you think of anaerobic exercise.

## Cramps

Muscle spasms or cramps may occur when a muscle is overused and tried, particularly if it is overstretched or has been held in the same position for a prolong period of time. In effect, the muscle cell runs out of energy and fluid and becomes hyperexcitable and then develops a forceful contraction.

It is commonly thought that dehydration and depletion of electrolytes will lead to muscle spasms and cramping. Muscle cells require enough water, glucose, sodium, potassium, calcium, and magnesium to allow the proteins within them to interact and develop an organized contraction. Abnormal supply of these elements can cause the muscle to become irritable and go into a spasm. Prevention is the key to most muscle spasm episodes. Since they are often associated with dehydration, it is important to keep the body well hydrated. You should also prepare your muscles for the activity they are expected to do. Warming up before a workout will increase oxygen and nutrient rich blood flow





to the lengthening muscles and tendons and

may help in the prevention of muscle spasms.



#### **Program News**

Back to normal schedule! See you in the water!
Please print both your first and last name on the
sign in sheet; it's really very helpful to me,
Thank you!

Should a muscle go into a spasm, gently stretch the muscle back to length to break the spasm cycle.

## Foods That May Help Prevent Cramps

Adding foods to your diet high in calcium, potassium, and magnesium may prevent muscle cramps.

Calcium-rich Foods: Milk, yogurt, cheese, and vegetables such as kale, okra and baked beans, nuts such as sesame seeds and almonds and fruits such as apricots and figs. Particularly calcium-rich foods include figs, tofu and sardines, each of which contain almost twice as much calcium per serving as a glass of milk. Potassium-rich Foods: Dried fruits, such as raisins and apricots, fresh fruit such as bananas, strawberries, cantaloupes and oranges. Freshly squeezed orange or grapefruit juices also provide potassium. Potassium-rich vegetables include beets, spinach, peas and mushrooms. Turkey, fish and beef also contain plenty of potassium

Magnesium-rich Foods: Adding nuts, whole grains and dark, leafy greens to your diet will boost your magnesium intake. Other magnesium-rich foods include broccoli, kale, spinach, almonds, pumpkin seeds and wheat germ. A serving of halibut also provides a particularly good source of magnesium.

If you wait for the perfect conditions, you'll never get anything done.